

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	335	("MgB.sub.2" MgB2 magnesium adj \$2boride)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:15
S2	222	S1 and (wire ribbon tape cable coil)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:15
S3	18	S2 and (Infiltrat\$4 diffusion) near5 boron	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:16
S4	28	S2 and (molten liquid melt\$3 infiltrat\$4) near5 (Mg magnesium)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:16
S5	30	S1 and (Mg\$2B magnesium near2 boron) near5 ratio	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:18
S6	76	S2 and (connect\$4 join\$4) near5 (superconductor wire ribbon tape cable coil end\$2)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:19
S7	14	S1 and (connect\$4 join\$4) near5 (superconductor wire ribbon tape cable coil end\$2) and filament	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:20
S8	11	(MgB2 magnesium adj \$2boride) and (wire ribbon tape cable coil) and (Mg magnesium) and ("B" boron) and (diffusion contact\$4 molten liquid melt)	EPO; JPO; DERWENT	OR	ON	2006/03/22 12:20
S9	9	(MgB2 magnesium adj \$2boride) and (wire ribbon tape cable coil) and (join\$4 connect\$4)	EPO; JPO; DERWENT	OR	ON	2006/03/22 12:20
S10	1	("MgB.sub.2" MgB2 magnesium adj \$2boride).dm. and (wire ribbon tape cable).dm. and (liquid molten) with (Mg magnesium).dm. and (dipping contact\$4).dm. and boron.dm. and (filament tape).dm.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:20
S11	3	("MgB.sub.2" MgB2 magnesium adj \$2boride).dm. and (wire ribbon tape cable).dm. and (pack\$4 fill\$4).dm. and (Mg magnesium).dm. and (diffus\$4 contact\$4).dm. and boron.dm.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:20
S12	9	("MgB.sub.2" MgB2 magnesium adj \$2boride).dm. and (wire ribbon tape cable).dm. and (powder heating).dm. and (contact\$4 join\$4).dm.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:20
S13	56	S1 and (505/100.CCLS. 500/124/CCLS. 505/230.CCLS. 500/430.CCLS. 505/433.CCLS. 505/452.CCLS. 505/704-705. CCLS. 505/736.CCLS. 505/925.CCLS. 505/927.CCLS. 174/125. 1.CCLS. 427/62.CCLS. 29/599.CCLS.)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:20
S14	43	("5082164" "5952270" "5962865" "5987731" "6038461" "6143697" "6281171" "6335108" "6436875" "6447714" "6458223" "6470564" "6511943" "6514557" "6573220" "6583362" "6586370" "6591119" "6503344" "20020004460" "20020013231" "20020035039" "20020038719" "20020058143" "20020111275" "20020132739" "20020164418" "20020165100" "20020173428" "20020189533" "20020198111" "20030017949" "20030032560" "20030036482" "20030051901" "20030082412" "20030096711" "20030099871" "20030125213" "20030130130" "20030146417" "20030150744" "20030164246").did.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:21
S15	4	("9826028" "200264859" "200283562").did.	EPO; JPO; DERWENT	OR	ON	2006/03/22 12:21

++++++ Silver (Ag) ++++++

Atomic Number: = 47

Atomic Weight: = 107.868

Oxidation States: = +1

Density, g/cm³, 20 C: = 10.50

Melting Point, C: = 961.93

Boiling Point, C: = 2164

Silver (Ag) derives its name from the Anglo-Saxon 'seolfor'. Silver has been known since ancient times. It occurs free and in ores, such as argentite and horn silver. Much of the metal is obtained in conjunction with the smelting of lead, gold, copper, and nickel. The metal has a brilliant white luster and is capable of taking a high polish. It is very ductile and malleable. High purity silver has the highest electrical and thermal conductivity of all of the metals. It does not oxidize in pure air but tarnishes readily in air containing hydrogen sulfide, ozone, or fumes of sulfur.

Many alloys of silver are used. Sterling silver is an alloy of about 92-93% silver with copper or some other metal. U.S. coins were, at one time, 90% silver. Silver is used extensively in photography. Other uses are in dentistry, solders and brazes, batteries, mirror production, and electrical contacts. When silver is first deposited as a mirror finish, it has the highest reflectivity to visible light known. The most important compound of silver is the nitrate which is used in photography and medicine.

++++++ Aluminum (Al) ++++++

Atomic Number: = 13

Atomic Weight: = 26.9815

Oxidation States: = +3

Density, g/cm³, 20 C: = 13.67

Melting Point, C: = 660.37

Boiling Point, C: = (3300)

Aluminum (Al) derives its name from the Latin 'alumen' or 'alum'. Oersted and Wholer are accredited with isolating the element in about 1826. Aluminum is the most abundant metal in the earth's crust, occurring as a silicate in clays and feldspars and as the hydrated oxide in bauxite.

Aluminum is a silvery-white metal that is light, soft, malleable and ductile and is capable of being machined and cast readily. Aluminum is also very corrosion resistant due to its ability to form a very thin protective layer of oxide. Aluminum oxide occurs naturally as ruby, sapphire, emery and corundum.

++++++ Magnesium (Mg) ++++++

Atomic Number: = 12

Atomic Weight: = 24.305

Oxidation States: = +2

Density, g/cm³, 20 C: = 1.74

Melting Point, C: = 650

Boiling Point, C: = 1105

Magnesium (Mg) derives its name from Magnesia, a district in Thessaly. Magnesium was recognized as an element in 1775 but was not isolated until 1808 by Davy. Magnesium is the eighth most abundant element in the earth's crust. It is somewhat reactive and primarily occurs combined in the form of minerals in large deposits of magnesite and dolomite.

Magnesium is a light, silvery metal that can be ignited in air to produce a dazzling white flame. It is this property which caused its wide use in the early days of flash photography.

Magnesium should be treated with care to minimize fire hazard. Magnesium fires should never be extinguished with water because of its reactivity.